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(72) Inventor FRANCIS JEAN-EDMOND ONETO

(54) LIQUID COMPOSITIONS FOR THE TREATMENT OF NATURAL OR SYNTHETIC FIBRES.

We, Unilever Limited, a company registered under the laws of Gueat Britain, of Port Sunlight, Birkenhead, Cheshire, England, do hereby declare the 5 invention for which we pray that a patent may be granted to us and the method by which it is to be performed, to be particularly described in and by the following state-

The present invention relates to liquid compositions for the treatment of natural fibres, and in particular for the dleansing or

care thereof.

Liquid dempositions for the treatment of 15 hair in the form of one aqueous layer and one oily layer are known. It has also been proposed in British Patent Specification 1,133,870 to produce liquid detergent compositions comprising an aqueous detergent layer and an oily layer. Such compositions on shaking form a temporary oil-in-water emulsion and on standing separate again into two distinct layers. Colourants or dyes can be included in the separate layers to give products having an unusual and pleasing appearance.

However, such previously proposed produots comprise an oily layer as an essential ingredient. We have now found that aqueous liquid compositions containing varying amounts of detergent and also existing in a phiral-layer physical state but having two aqueous layers can be obtained by incorporating in a liquid composition containing 0.1 to 80% by weight of detergent an electrolyte
35 and a water-miscible organic solvent in appropriate relative amounts.

Accordingly, therefore, the invention in its broadest aspect relates to a liquid detergent composition having a pH of from 4 to 7 suitable for the treatment of natural fibres con-Price

taining from 0.1 to 80% by weight of a detergent, a water-miscible organic solvent, and an electrolyte, the relative proportions of the efectrolyte and the organic solvent being such that the composition comprises two aqueous

layers at 0°C.

The liquid composition of the invention may contain up to 90% by weight of the organic solvent but preferably contains an amount of the organic solvent of from 2 to 40% by weight of the composition. As the watermiscible organic solvent one may use, for example: a straight or branched chain monohydric aliphatic alcohol containing from 1 to 7 carbon atoms, such as ethyl alcohol or isopropyl alcohol; a dihydric aliphatic alcohol containing from 2 to 7 carbon atoms, such as hexylene glycol; a monoalkyl ether of an aliphatic dihydric alcohol containing a total of 3 to 6 carbon atoms, such as the monomethyl, -ethyl and -butyl ethens of ethylene glycol; or a dialkyl ketone containing a total of 3 to 5 carbon atoms, such as acetone. Other solvents that can be used are benzyl alcohol or phenyl ethyl alcohol. Preferred solvents are ethyl alcohol, hexylene glycol, the monomethyl ether of ethylene glycol, and acetone. Mixtures of solvents can also be used.

The amount of the solvent employed to some extent dictates the rate at which the layers in the products of the invention separate after shaking of the composition, which separation will usually occur between 5 minutes and 5 hours.

The relative proportions of the constituents of the liquid composition of the invention will usually be chosen in such a way that the weight of the llower aqueous layer is between 2% and 75% by weight of the composition.

In the liquid composition according to the

present invention, the amount of the electrolyte is preferably from 3 to 25% by weight of the composition.

The pH of the liquid composition may vary

5 over a wide range between 4 and 7.

In a preferred form of the invention the electrolyte forms part of a buffering system.

Among the anionic constituents of the electrolytes may be cited: lactic acid, citric 10 acid, tartaric acid, ascorbic acid, salicylic acid, phosphoric acid, ethylenediaminetetraacetic acid, nitrilotriacetic acid, diethylenetriamine penta-acetic acid, 2 - hydroxyethyliminodiacetic acid, sorbic acid, glycollic acid, and mixtures of these adids. Among the cationic constituents may be cited sodium, potassium, lithium, ammonium, the alkanolamines such as mono-, di-, and triethanolamine and isopropylamine. Mixtures of different salts may of course be used. It is generally preferably to use electrolytes other than those with solely mineral cations, such as sodium or potassium citrate, or sodium or potassium phosphate, since the latter may provoke crystallisation leading to less attractive products.

The liquid compositions according to the present invention are very suitable for the

cleansing or care of the hair.

It was found in washing tests on human hair that the application of a liquid composition of the invention in the form of a shampoo in which the electrolyte formed part of an acid buffering system, compared with that of the same shampoo without the electrolyte and organic solvent, produced certain beneficial effects, and in particular the gloss, softness and setting properties of the hair were improved and, in the case of greasy hair, a slowing down of the rate of becoming greasy again was obtained. These results were obtained in salon trials involving two groups of women totalling 50 in number, the majority of whom had greasy hair. The use of shampoos containing an acid buffering system has been found to be particuarly advantageous when washing the hair with hard water, since the reserve of acidity prevents or reduces the deposition of calcium and magnesium soaps on the hair 50 thereby improving the condition of the hair.

Moreover the action of certain bactericides

is favourably influenced by an acid medium. As already indicated, in the formation of a system of two aqueous layers, the amounts of the electrolyte and the organic solvent are inter-related. For a given detergent solution, the appropriate amounts of the electrolyte and the organic solvent can be determined by simple experiment. This relationship is illus-

trated below.

The influence of an increasing amount of electrolyte is demonstrated with the following system:

Ammonium lauryl sulphate Hexylene glycol Water 7.5% by weight 25.0% by weight 67.5% by weight

If one progressively replaces the water by an increasing amount of a solution of citric acid neutralized by monoethanolamine to pH 6.1, the system passes through three regions of different stabilities:—

a) With a concentration of the citric acid salt below about 9.5% by weight of the composition, the product is in the form of a homogeneous liquid.

b) On exceeding this concentration at room temperature (20°C), the product is in two layers. The upper layer contains the majority of the detergent, the lower layer contains the majority of the electrolyte. By shaking, one obtains a turbid product, which at room temperature in about half an hour again separates into two clear layers, one above the other. This system, however, is unstable since the volume of the layer containing the electrolyte is a function of the temperature and this layer disappears at relatively low temperatures (from 0°C to room temperature).

c) On further increasing the concentration of the citric acid salt to between 11 and 12% by weight, the two-layer system becomes stable, i.e., the two-layer physical state is obtained throughout the temperature range of the experiment.

The quantitative results are summarised in Table I below in which the weight percentage of the lower layer is indicated.

15

Table I

Percentage by weight of the composition of citric acid		· · · · · · · · · · · · · · · · · · ·	 -	······································
neutralized with monoethanol- amine to pH 6.1	Weigh 0°C	t percentage 20°C	s if lower la	yer at: 42°C
9	. –	_	- 28%	38%
9.15		_	32%	39%
9.3		·—	35%	40%
9.5	_	_	39%	42%
10	_	26%	42%	· 45%
11	_	45%	47%	48%
12	49%	49%	50%	50.5%
13	50%	51%	52%	52%

Similarly, the influence of an increasing amount of organic, water-miscizle solvent is demonstrated with the following system:

Ammonium lauryl sulphate 7.5% by weight Citric acid neutralized with monoethanolamine to

pH 6.1 13.0% by weight 79.5% by weight Water

- If one progressively replaces the waten in this system by hexylene glycol, one finds that:
 - a) with a concentration of hexylene glycol up to 13% by weight of the composition, the product is in the form of a clear and homogeneous liquid throughout the temperature range of 0 to 42°C;

b) with a concentration of 15% by weight of hexylene glycol the product is unstable, since at the higher temperatures of the temperature range it is in the form of two layers and at the lower temperatures it is homogeneous;

c) on increasing the concentration of hexylene glycol to 25% by weight of the composition, a stable two-layer system is produced. On exceeding 25% by weight of the hexylene glycol, the system remains stable and only the amount of the electrolyte layer is modified.

The quantitative results are summarised in 30 Table II below, in which the weight percentage of the lower layer is again indicated.

TABLE II

Percentage by weight of the composition of hexylene glycol	Weigh	ght percentage of lower layer at:		
	0°C	. 20°C	35°C	42°C
13%	_		_ ·	_
15%	-	_	50%	52%
25%	50%	51%	52%	52%
30%	48%	48%	48%	49%
35%	42%	43%	44%	44%

The detergent used in the liquid composition of the invention may be an anionic, cationic, non-ionic, or ampholytic detergent or a mixture thereof. The amount of the determination of the invention may be an anionic, and 30% by weight of the composition.

Examples of anionic detergents that may be used are: soaps of higher fatty acids containing from 8 to 26 carbon atoms; longchain primary or secondary alkyl sulphates containing from 8 to 22 carbon atoms, such as lauryl sulphate; esters of sulphuric acid and polyols partially esterified with higher fatty acids, for example the monosulphate of tallow monoglyceride; sulphated alkanolamides of 10 higher fatty acids; alkyl ether sulphates, for example lauryl ether sulphate; hydroxylsulphonated esters of higher fatty acids; esters of higher fatty acids and low-molecular-weight hydroxy alkanesulphonic acids, for example the oleic ester of isethionic acid; amides of higher fatty acids and aminoalkanesulphonic acids, for example the oleic arride of taurine; water-soluble alkyl phosphates; sulphated reaction products of alkylene oxides with hydrophobic materials as described below; sulphonated oils; sulphonated higher fatty acids; primary and secondary alkyl sulphates; olefin sulphonates; and sulphonates of alkylaromatic hydrocarbon compounds possessing an alkyl substituent containing from 8 to 26 carbon atoms (with a mono- or polynuclear structure). Examples of cationic detergents are alkyl-

amine salts; quaternary ammonium salts; and acylalkanolamine salts.

As non-ionic detergents that can be used in the commerciance according to the present

As non-tonic detergents that can be used in the compositions according to the present invention may be mentioned: condensation products of alkylene oxides with hydrophobic compounds such as higher fatty alcohols, polyols, alkylphenols, products of the reaction of propylene oxide with ethylenediamine, fatty acid anxides, amides of alkanesulphonic acids, substituted polyamines, and polypropylene glycols. Other non-ionic products are the products of the condensation of fatty acid chlorides with hydrolysed natural proteins, esters of higher fatty acids and sugars.

The ampholytic detergents that can be used are, for example, salts of N-alkylated compounds of β -aminopropionic acid, imidazolines, betaines, and sultaines.

The detergents may be used in the form of their water-soluble salts such as the alkali metal, alkaline-earth metal, and ammonium salts, and also in the form of salts of nitrogencontaining bases such as the alkanolamines, for example mono-, di-, and triethanolamine. It is also possible to use mixtures of salts.

Also foam improvers and stabilisers may be included in the liquid composition of the invention. The foam improver and stabilizer, which will generally be a part of the detergent, may be used in a proportion of up to 50%, preferably between 2 and 25%, by weight of the composition. As foam improvers and stabilisers may be employed tertiary amine oxides, betaines, and higher fatty acid alkanolamides.

It is, of course, possible to include in the compositions of the present invention additives customarily used in the detergent and cosmetic industry, in particular perfumes (deterpenised or not), emollients, colouring agents, presenvatives, protein hydrolysates, antioxidants, germicides, and pigments.

The liquid composition according to the invention may contain variable amounts of natural and synthetic liquid water-immiscible oily materials, for example, the weight percentage of the oily material may be up to 50% of the composition. Particularly suitable natural oily materials are light and heavy mineral or hydrocarbon oils, animal and vegetable oils, alkyl esters of fatty acids, and lanolin derivatives. It is also possible to use synthetic oily materials such as silicone oil of fairly high fluidity, particularly in the case where the composition is used for washing textiles, for which the silicone oil serves to provide a water-repellent finish. In the case where the composition contains a silicone oil and one or more vegetable, animal, or mineral oils, the composition at rest comprises, in addition to the two aqueous layers, two oily layers, since these two types of oil do not mix with one another.

The use of colouring agents ensures that the compositions according to the invention have a good appearance. In fact, colouring agents soluble in aqueous media are preferentially distributed between the two aqueous phases and, when oily phases are present, oli-soluble colouring agents are likewise distributed preferentially in the various oily phases. This leads to the situation that the composition according to the invention when at rest has the form of a superposition of two or more layers of different colours.

To obtain the coloration of the different layers, it is preferable to dissolve colouring agents soluble in the aqueous media in the aqueous phases alone and then to dissolve the lip soluble colouring agent or agents separately in the oily phase or phases alone, and subsequently to mix the aqueous and the oily 110 phases together.

The liquid products according to the present invention may be in the form of, for example, shampoos, and foam baths.

As mentioned above, the liquid compositions according to the present invention are shaken before use to form an intimate mixture. An acceptable dose for use as a shampoo, for instance, is about 7 to 30 g. per shampooing.

The invention will now be illustrated by the

The invention will now be illustrated by the following Examples of liquid detergent composition comprising two flayers of 0°C in accordance with the invention in which the percentages given are percentages by weight.

	EXAMPLE 1 The following mixture is made:	Example 4	
	1	The following mixture is made:	60
_	Ammonum lauryl sulphate 14.0	Ammonium lauryl sulphate 13.5	
5	Coconut diethanolamide 6.0	Coconut dierhanolamide 6.0	
	Ethoxylated lauryl alcohol with 7 mole-	Ethoxylated lauryl alcohol with 7 mole-	
	cules of ethylene oxide 4.0	cules of ethylene oxide 4.0	6,5
	Hexachlorophene 0.5	Hexachlorophene 0.5	•
10	Hexylene glycol 10.0 Perfume 0.5	Alkyldimethylbenzylammonium	
10	0.5	saccharinate 0.5	
		Hexylene glycol 15:0	
•	Ortric acid 3.0 Sorbic acid 0.2	Perfume 0.5	70
	Water, colouring agents, etc. 45.3	Neutral monoethanolamine citrate 12.0 Citric acid 2.0	
	7 - 8 - 8 - 20 - 47.5	Water	
15	This composition has a pH between 5 and	water, colouring agents, etc. 46.0	
	After being shaken and left for some hours.	This composition has a pH between 5 and	
	the composition separates into two distinct	6. After being shaken and left for some hours,	75
	layers: 42% by weight of lower layer and	the composition reparates into two distinct	
	38% by weight of upper layer. This com-	layers: 44% by weight of lower layer and	
20	position is particularly useful for the care of the hair.	30% by weight of upper layer. This com-	
	of the nat.	position is particularly useful as an anti-	
	Example 2	dandruff shampoo.	80
	The following mixture is made:	Erranne – E	
	**************************************	EXAMPLE 5 The following mixture is made:	
25	Ammonium lauryl sulphate 12.3	and following invalue is invalue:	
	Coconut diethanolamide 5.3	Ammonium fauryl sulphate 12:0	
	Ethoxylated lauryl alcohol with 7 mole-	Coconut diethanolamide 6.0	85
	cules of ethylene oxide 3.5	Ethoxylated lauryl alcohol with 7 mole-	-
	Hexylene glycol 13.0	cules of ethylene oxide 4.0	
30	Perfume 2.0	Sodium salt of monoethanolamine un-	
	Neutral monoethanolamine cirrare 14.5 Citric axid 2.7	decylenic sulphosuccinate 2.0	
	Water, colouring agents, etc. 46.7	Hexachlorophene 0.5	90
	TU./	Hexylene glycol 15.0 Perfume 0.5	
	This composition has a pH between 5 and	Neutral monoethanolamine citrate 14.0	
35	6. After being shaken and left for some hours.	Citric acid 2.0	
	the composition separates into two distinct	Water, colouring agents, etc. 44.0	95
	dayers: 37% by weight of lower layer and	, , , , , , , , , , , , , , , , , , , ,	
	63% by weight of upper layer. This composi-	This composition has a pH between 5 and	
40	tion is particularly useful as a perfumed foam bath.	6. After being shaken and left for several	
40	oau.	hours, the composition separates into two	
	Example 3	distinct layers: 35% by weight of lower layer	100
	The following mixture is made:	and 65% by weight of upper layer. This com- position is particularly useful as an anti-	100
	%	dandruff shampoo.	
	Sodium lauryl ether sulphate with 2	Below, three possibilities for colouring the	
45	molecules of ethylene oxide 12.5	detergent composition described in this	
	Cocomit diethanolamide 9.0	example are given:	105
	Hexylene gycol 14.0	1) For each 100 g of composition, 0.0015	
	Perfume 0.5 Neutral monoethanolamine citrate 13.0	g of blue dye (Colour Index No. 42051) and	
50	Neutral imonoethanolamine citrate 13.0 Citric acid 3.0	0.0025 g of yellow dye (Colour Index No.	
50	Water, colouring agents, etc. 48.0	19140) are added to the two aqueous phases.	110
	70.0	The emulsified product has a pale green opalescent colour. On standing, it separates	110
	This composition has a pH between 5	into two layers; the upper layer is green and	
	and 6. After being shaken and left for some	the lower layer is lemon-yellow.	
	hours, the composition separates into two	2) For each 100 g of composition, 0.0025	
55	distinct layers: 22% by weight of lower layer	g of orange dye (Colone Index No. 15510)	115
	and 78% by weight of upper layer. This com-	and 0.0050 g of yellow dye (Colour Index No.	
	position is particularly useful for washing	19140) are added to the two aqueous phases.	
	woollen goods.	The emulsified product has an orange opales-	

Hexachlorophene Neutral monoethanolamine citrate Octric acid Perfume Octric acid Octric acid Perfume Octric acid O				
'a) For each 100 g of composition, 0.0040 g of red dye (Cdour Index No. 16185), and of red dye (Cdour Index No. 16185), and 0.8025 g of yellow dye (Cdour Index No. 19140) are added to the two accuses phases. The emulsified product has a red opalescent colour. On standing, it separates into two layers: the upper layer is red and the lower layer is golden yellow. EXAMPLE 6 The following mixture is made: EXAMPLE 6 The following mixture is made: 15 Miranol HSC (Trademark: an ampholytic detergent) Alkyldimethylbenzylammonium chloride on the composition is particularly useful as a shampoo. EXAMPLE 7 This composition has a pH of 7. After being shaken and left for some hours, the composition separates into two distinct layers: 29% by weight of lower layer and 71% by weight of upper layer. This composition is particularly useful as a shampoo. EXAMPLE 7 The following mixture is made: 20 Coomut diethanolamide of the composition separates into two distinct layers: 29% by weight of lower layer and 71% by weight of upper layer. This composition is particularly useful as a shampoo. EXAMPLE 7 The following mixture is made: 21 Ammonium lauryl sulphate of upper layer. This composition has a pH of 7. After being shaken and left for some hours, the composition separates into two distinct layers: 29% by weight of lower layer and 71% by weight of upper layer. This composition has a pH of 5.3. After being shaken and left for 2 hours, the composition separates into two distinct layers: 20 Pertume 0.5 Water, colouring agents, etc. 61.45 Check and 0.50 EXAMPLE 7 The following mixture is made: 14.0 Coconut diethanolamide 1.5.0 EXAMPLE 8 The following mixture is made: 1.5.0 EXAMPLE 10 The following mixture is made: 1.5.0 EXAMPLE			6. After being shaken and left for 6 hours,	6
g of red dye (Colour Index No. 16183), and to 0.0025 gof yellow dye (Colour Index No. 19140) are added to the two aqueous phases. The emulsified product has a red opelescent colour. On standing, it separates into two layers: the upper layer is red and the lower layer is golden yellow. EXAMPLE 6 The following mixture is made: EXAMPLE 6 The following mixture is made: EXAMPLE 6 The following mixture is made: Miranol HSC (Trademark: an ampholytic detergent) Alkyldimetriylbenzylammonium chloride on the lower layer and the lower layers. This composition has a pH of 5.3. After being shaken and left for some hours, the lower layer and the lower layer layer.	_	3) For each 100 g of composition, 0.0040 g	layers: 10% by weight of lower layer and	
***No.8025 g of yellow dye (Colour Index No. 19140) are added to the two aqueous phases. The emulsified product has a red opelescent to colour. On standing, it separates into two layers: the upper layer is red and the lower layer is golden yellow. **EXAMPLE 6** The following mixture is made: **EXAMPLE 6** The following mixture is made: **Miranol HSC (Trademark: an ampholytic detergent) Akkyldimethylbenzylammonium chloride of 15 squinoline alkyl bromide of	5	of red dye (Colour Index No. 16255), 0.0030		70
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layer is golden yellow. EXAMPLE 6 The following mixture is made: Miranol HSC (Trademark: an ampholytic detergent) Akyldimethylbenzylammonium chloride Isoquinoline alkyl bromide OCocomut diethanolamide This composition has a pH of 7. After being shaken and left for some hours, the composition separates into two distinct layers: 29% by weight of lower layer and 71% by weight of lower layer	Ŭ	layers: the upper layer is red and the lower	Ammonium lauryl sulphate 5.35	
EXAMPLE 6 The following mixture is made: Miranol HSC (Trademark: an ampholytic detergent) Miranol HSC (Trademark: an ampholytic detergent) Akkyldimethylbenzylammonium chloride Isoquinoline alkyl bromide Coconut diethanolamide Total Hexylene glycol Neutral monoethanolamine citrate Citric acid Perfume This composition has a pH of 7. After being shaken and left for some hours, the composition separates into two distinct layers: 200 Neutral monoethanolamine citrate This composition has a pH of 5. After being shaken and left for some hours, the composition separates into two distinct layers: 200 Neutral monoethanolamide The following mixture is made: Ammonium lauryl sulphate Coconut diethanolamide Sodium lauryl ether sulphate with 2 Mater, colouring agents, etc. This composition has a pH of 5.3 After being shaken and left for some hours, the composition separates into two distinct layers: 200 Neutral monoethanolamine citrate The following mixture is made: Ammonium lauryl sulphate Coconut diethanolamide Sodium salt of lower layer and 66% by weight of upper layer. This composition is particularly useful as a shampoo. Hexachlorophene Sodium salt of lower layer and 66% by weight of upper layer. This composition is particularly useful as a shampoo. Hexachlorophene Sodium salt left for some hours, the composition separates into two distinct layers: 3.0 Hexachlorophene Sodium salt left for some hours, the composition separates into two distinct layers: 3.0 Hexachlorophene Sodium salt left for lower layer and 66% by weight of upper layer. This composition separates into two distinct layers: 3.0 Hexachlorophene Sodium salt left for being shaken and left for some hours, the composition separates into two distinct layers: 25% by weight of lower layer and 65% by weight of upper layer. This composition separates into two distinct layers: 25% by weight of lower layer and 65% by weight of lower layer and 66% by weight of upper layer. This composition separates into two distinct layers: 3.0 Hexachlorophene Sodium salt of			Hexylene glycol 39.50	75
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Isoquinoline alkyl bromide Occomut diethanolamide Occomut diethanolamide Occomut diethanolamide Occomut diethanolamide Octoric acid Oct			position separates into two distinct layers:	
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Michigania Serial March Colonia Coloni			water, colouring agents, etc. 58.5	
Neutral monoethanolamine citrate 15.0 As the fluid paraffin oil, an oil having a 1]		As the fluid paraffin oil, an oil having a 1	20
Citrad acid 2.0 density at 20°C between 0.835 and 0.855 is	-	Citrád acid 2.0	density at 20°C between 0.835 and 0.855 is	
Perfume 0.5 used. Water, colouring agents, etc. 57.5 A composition is obtained with a pH			A composition is obtained with a pH	

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EXAMPLE 12 The following mixture is made:

15 20	Ammonium dauryl sulphate Coconut diethanolamide Ethoxylated lauryl alcohol with 7 molecules of ethylene oxide Monoethanolamine citrate Citric acid Fluid paraffin oil Silicone oil (viscosity 100—200 centistokes) Perfume Hexylene glycol	4.0 10.0 2.0 10.0 5.0 0.5 15.0
	Water, colouring agents, etc.	35.5

The fluid paraffin oil is the same as used 25 in Example 15.

A composition is obtained with a pH between 5 and 6 when it is emulsified. After being emulsified and left for some hours, the composition has the form of foun distinct 30 layers: 26% by weight of lower layer, 63% by weight of second aqueous layer, 4% by weight of first oily layer and 7% by weight of oily upper layer. This composition is particularly useful for the washing of fabric 35 whereby hydrophobic properties are imparted to the fabric.

WHAT WE CLAIM IS:-

A liquid detergent composition having a pH of from 4 to 7 suitable for the treatment of natural fibres containing from 0.1 to 80% by weight of a detergent, a water-miscible organic solvent, and an electrolyte, the relative proportions of the electroyte and the organic solvent being such that the composition comprises two aqueous layers at 0°C.

2. A liquid composition as claimed in Claim 1, wherein the amount of the water-miscible organic solvent is from 2 to 40% by weight of the composition.

3. A liquid composition as claimed in Claim 1 or Claim 2, wherein the water-miscible organic solvent is a straight or branched chain monchydric aliphatic alcohol containing from 1 to 7 carbon atoms; a dihydric aliphatic alcohol containing from 2 to 7 carbon atoms; a monoalkyl ether of an aliphatic dihydric alcohol containing a total of 3 to 6 carbon atoms or a dialkyl ketone containing a total of 3 to 5 carbon atoms.

4. A liquid composition as claimed in Claim 3, wherein the solvent is ethyl alcohol; hexylene glycol; the monomethyl ether of ethylene

glycol or acetone.

5. A liquid composition as claimed in any one of the preceding claims, wherein the amount of the electrolyte is from 3 to 25% by weight of the composition.

6. A liquid composition as claimed in any one of the preceding Claims, wherein the electrolyte forms part of a buffering system.

7. A liquid composition as claimed in Claim 6, wherein the buffering system is a mixture of citric acid and an alkanolamine salt of citric acid.

8. A liquid composition as claimed in any one of the preceding Claims, wherein the amount of the detergent is from 5 to 30% by weight of the composition.

9. A liquid composition as claimed in any one of the preceding Claims, wherein the detergent comprises an anionic detergent.

10. A liquid composition as claimed in any one of the preceding Claims, wherein the detergent is an akyl sulphate or an alkyl either sulphate.

11. A liquid composition as claimed in any one of the preceding Claims, wherein the composition also comprises a layer of a liquid, water-immiscible, oily material.

12. A liquid composition as claimed in Claim 11, wherein the oily material is a mineral oil.

13. A liquid composition substantially as herein described with reference to any one of Examples 1 to 12.

R. H. DOUCY, Chartered Patent Agent.

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